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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,136	12/27/2000	Steven E. Warner	12052-04000	5439

24024 7590 05/10/2004

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EXAMINER

CHARLES, MARCUS

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/752,136

Applicant(s)

WARNER ET AL.

Examiner

Marcus Charles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 18-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-17 and 31-33 is/are rejected.
- 7) ☐ Claim(s) 11 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

This action is responsive to the amendment filed 07-14-2003, which has been entered.

Claims 1-24 are currently pending. Claims 18-30 has been withdrawn as set forth in paper no. 10.

#### ***Drawings***

1. The examiner has accepted the corrected drawing filed 07-14-2003.

#### ***Claim Rejections - 35 USC § 112***

2. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 8, it is not clear is the recited auto-tensioning spring is as same as the spring that is recited in claim 1. If they are the same, then there includes a double inclusion.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 7-10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth et al.('071) in view of Siegal (3,230,787). Smyth et al. discloses a variable speed drive system comprising a controllable pulley (11) in rotational communication with the rotational member (10), the controllable pulley includes a first moveable flange (43) and a corresponding adjustable pitch radius, an

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auto-tensioning pulley (13) driven by the controllable pulley via a first belt (12), the auto-tensioner has a variable pitch section which is infinitely variable between a minimum and maximum pitch ratio, an actuating system (63-70), which is a hydraulic system generates a linear force parallel to the direction of the first moveable flange (59) for moving the first moveable flange and a compressor (32) driven by the auto-tensioning pulley via a second belt (31). Smyth et al. does not disclose the auto-tensioner includes a spring with the first movable flange for tensioning the belt. It is well know in the art to use a spring to axially move a movable flange in order to reduce manufacturing and maintenance cost. Seigal discloses an auto-tensioning pulley comprising a first movable flange (22) including a spring (70) for moving the flange so as to provide a continuously biasing force to the belt (12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the hydraulic system Smyth et al. so that it is a spring in view of Seigal for moving the flange so as to provide a continuously biasing force to the belt, to reduce manufacturing and maintenance cost, and to produce a continuous biasing force during system shut down.

In claim 8, note the spring (70) is an auto tensioning device

Regarding claims 9 and 10, Smyth et al. clearly discloses that the system is that of a vehicle (col.1, lines 21-26).

In claim 13, note the rotational member comprises an engine (E).

5. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth et al. in view of Siegal as applied to claim 1 above, and further in view of Spiess et al. Smyth does not disclose that the actuating system comprises a hydraulic pump, a

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control valve and hydraulic fluid operated by a piston connected to the moveable flange. Spiess et al. discloses a CVT comprising hydraulic pump (20) a control valve (160), a hydraulic operated piston (see piston chambers 13, 17) connected to the moveable flange (40) in order to control the flange more efficiently so that the movement can be controlled and detect through very small changes. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the actuating system of Smyth et al. from a spring to the actuating system of Spiess et al. in order to control the flange more efficiently such that the movement can be controlled and detect through very small changes.

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth et al in view of Siegal as applied to claim 1 above, and further in view of JP (63-225734). Smyth et al. discloses that one of the drive accessories (28) is a powering steering pump but does disclose the pump is a hydraulic pump. JP (63-225734) disclose a transmission comprising a hydraulic power steering pump in order to make the system more compact, to increase accuracy and reduce maintenance cost. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the power steering pump of Smyth et al so that it is a hydraulic power steering pump in view of JP (63-225734) in order to make the system more compact, to increase accuracy and reduce maintenance cost.

7. Claims 6, 14, 16-17 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth et al in view of Siegal as applied to claim 1 above, and further in view of Ibamoto et al. (2001/0053731). Smyth et al and Siegal disclose the claimed

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invention except for the control logic module. Ibamoto et al. discloses a CVT having a control logic module (110) for regulating the required pressure on the movable sheave via information gathered by sensor (119). Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to further modify Smyth et al. device to include a control logic module in view of Ibamoto et al. for regulating the torque and the required pressure on the movable sheave.

8. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth et al. in view of Siegal and Spiess et al. as applied to claim 1 above, and further in view of Ibamoto et al. (2001/0053731). Smyth et al. in view of Siegal and Spiess et al. do not disclose a control logic module. Ibamoto et al. discloses a CVT having a control logic module (110) for regulating the required pressure on the movable sheave via information gathered by sensor (119). Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to further modify Smyth et al. device to include a control logic module in view of Ibamoto et al. for regulating the torque and the required pressure on the movable sheave.

#### ***Allowable Subject Matter***

9. Claim 11 and 12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-10, and 13-17 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (703) 305-6877. The examiner can normally be reached on Monday -Thursday 7:30 am-600 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Marcus Charles  
Primary Examiner  
Art Unit 3682  
May 03, 2004